January-March 1998 Volume 23, Number 1

A summary of recent news stories from the University of California San Francisco

UCSF

To Our Neighbors

Mission Bay planning moves forward

Planning for UCSF's Mission Bay campus continues as University officials, faculty and architects work out the details for developing a major biomedical research center at the 43-acre site in San Francisco.

UCSF expects to ask the UC Regents this month to approve the plan, which calls for construction of the first building to begin in less than a year.

Together, the first three buildings, located at the southwestern block of the site, at 16th and Owens streets, will house research labs, animal care, administrative support and employee amenities.

Full buildout of the $800 million campus — contingent on financing — is expected to be phased over the next 15 years. Financing for the entire project will come from a variety of sources, including external financing, the State Capital Improvement Program, campus reserves, and new and existing gifts from donors.

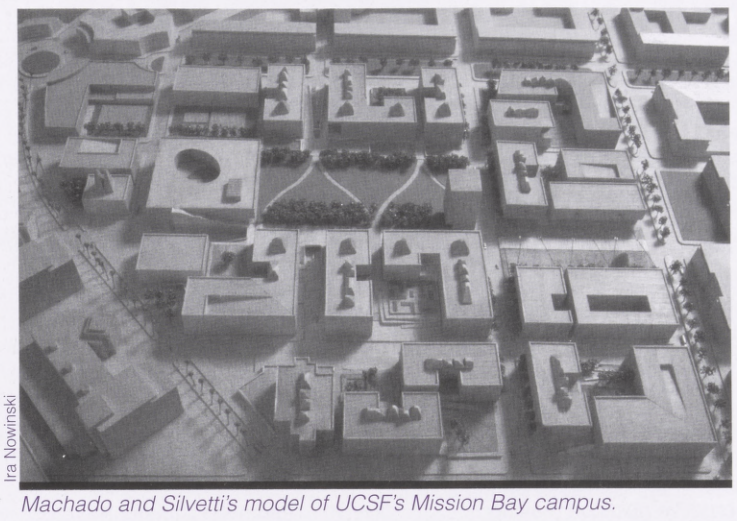
UCSF and the Catellus Development Corp. have completed the agreement under which the land for the site will be transferred to the University.

UCSF is seeking to establish a public-private partnership with the Bay Area Life Sciences Alliance (BALSA) for the promotion, fund raising, master planning and development of Mission Bay.

BALSA, a nonprofit public benefit corporation established by local business leaders to promote biotechnology development in the Bay Area, has assisted the campus in acquiring Mission Bay and sponsored an international architectural competition for its design.

"This campus is extremely grateful to BALSA for sponsoring this master plan," says Bruce Spaulding, vice chancellor of university advancement and planning. "We have received close to one million dollars' worth of expertise and valuable design concepts at no expense to the campus or the state."

Culminating the five-month competition, which included time for public and campus review, a 10-member jury panel selected Machado and Silvetti Associates Inc. to prepare the master plan. Chancellor Haile Debas accepted the jury and BALSA's recommendation to name the internationally renowned firm as the master architects. Other architects have been invited to design individual buildings.



Ira Nowinski

Machado and Silvetti's model of UCSF's Mission Bay campus.

Machado and Silvetti's proposal for Mission Bay does not espouse any single architectural style, but strives to find that which is unique. In this case, the focal point is a grassy hill and courtyard designed to complement the local landscape while giving onlookers a view of the city skyline.

With UCSF as an anchor tenant, the area is expected to become a hub for biomedical technology. Plans for the neighborhood also include private research and development ventures, 6,000 residential units, including 1,500 earmarked for lower-income families, a public school and a light rail system. The new baseball stadium is under construction nearby.

With additional research space made available at Mission Bay, UCSF faculty leaders see exciting opportunities to re-evaluate the way research traditionally has been conducted and to bring new combinations of scientists together for collaboration.

"At the edge of the new millennium, and with the prospect of a new campus, UCSF finds itself optimistic and energized. We anticipate great accomplishments in the 21st century," Debas says.

UCSF develops vaccine for breast cancer

With a goal of preventing tumors from spreading to the level of invasive breast cancer, UCSF researchers are developing a vaccine that targets a specific protein that might prove to be an effective therapy in controlling the disease.

Laura Esserman, MD, MBA, director of the UCSF Breast Care Center, has been working for the past three years to develop a non-toxic tumor vaccine.

Unlike vaccines that prevent people from becoming ill, cancer vaccines now under study are being designed to fight its further spread, thereby reducing the chance of death.

This vaccine strategy might be an ideal intervention to prevent pre-malignant lesions called ductal carcinoma in situ (or DCIS) from becoming invasive breast cancer, says Esserman.

Of the 183,000 women who are diagnosed with breast cancer each year, about 10 to 15 percent are diagnosed in the pre-malignant stage with DCIS. These lesions have the potential to turn into an invasive cancer even after lumpectomy treatment in 10 to 30 percent of cases.

"We believe that the very early diagnosis of a cancer may be the ideal time to intervene with a preventative strategy, such as a vaccine," Esserman says.

The vaccine strategy, which has been tested in laboratory mice, is targeted at the HER2/neu oncogene, a genetic alteration thought to play a role in 25 percent of all breast cancers. Too much of this gene causes over-production of a protein that attaches to the cell surface and promotes tumor growth. After researchers immunized the animals, the mice developed antibodies to the HER2/neu protein — demonstrating the presence of an immune response. Only 50 percent of the immunized mice developed tumors, compared to a rate of 90 percent without the vaccine.

"This first pilot experiment shows 'proof of concept' that a vaccine strategy could prevent the development of tumors. We need less invasive strategies for women who are detected with very early cancers, and we will need new models to test this in women," Esserman says.

Esserman is applying for a research grant to further the studies, develop a promising vaccine strategy, and test it in a clinical trial within three years.

Mother-to-baby HIV transmissions fall

A UCSF program based at San Francisco General Hospital has effectively eliminated mother-to-child transmission of HIV, says Karen Beckerman, MD.

As director of the Bay Area Perinatal AIDS Center (BAPAC), Beckerman reports that not one of 56 HIV-positive pregnant women under care since April 1995 has delivered a baby infected with the virus. This success is attributed to the use of combination antiretroviral therapies, as well as counseling and support, careful monitoring and ongoing expert care, says Beckerman, a UCSF assistant professor of obstetrics, gynecology and reproductive sciences.

"Our ultimate goal used to be to prevent transmission from mother to child," she says. "Now our ultimate goal is to get the mom to her child's high school graduation. We still don't know if that is an achievable goal."

BAPAC researchers took part in the landmark national clinical trial that found that use of the drug AZT during pregnancy and delivery dramatically reduced rates of perinatal HIV transmission. BAPAC caregivers routinely offered AZT as an option to HIV-positive pregnant women until June 1996, when they switched to use of a combination therapy based on new national recommendations for the care of HIV-infected adults.

Emergency contraception facts

Too few women know that the same oral contraceptives used for regular birth control are safe and effective for emergency contraception in cases when women have had unprotected sex within 72 hours.

And, although most US obstetricians and gynecologists are aware of emergency contraception, they prescribe it infrequently, says David Grimes, UCSF professor and chief of ob/gyn and reproductive sciences at San Francisco General Hospital.

"Unintended pregnancies are endemic in the US and the costs are huge," he says. "The traditional approach to this problem has been contraception backed up by induced abortion. For decades, emergency contraception has been ignored as a method of primary prevention."

A 24-hour hotline, sponsored by the Reproductive Health Technologies Project and the Bridging the Gap Foundation, offers information and referrals about emergency contraception. The number is 1-888-NOT-2-LATE (1-888-668-2528).

Program keeps weight off

An obesity program that shuns diets and drugs can lead to continued weight loss two years after starting the treatment, a study shows.

"Until now there has been no weight reduction method that produces weight loss that continues long after treatment ends," says Laurel Mellin, UCSF associate clinical professor of family and community medicine and pediatrics.

Study participants met weekly for two-hour group sessions over an 18-week period. Researchers found that the 22 adults who completed the program lost an average 12 pounds during treatment, without dieting or taking weight-loss drugs. Two years after the treatment began, weight loss continued with individuals weighing an average 17 pounds less than their starting weight. In contrast, studies of other weight loss methods show weight regain after treatment ends, says Mellin.

Significant improvements in participants' well-being were noted as well. At two years, 91 percent felt happier, 86 percent had improved relationships, 86 percent coped better with work, 77 percent improved their health and vitality and 67 percent decreased their blood pressure. For more information on the program, call 353-7764.

More news for you
on the back page

What's happening

To Our Neighbors
January–March 19
A quarterly calend
events at UC San F

Special Events

Gordon Tomkins Lecture, Concert

Friday, Jan. 9: The department of biochemistry and biophysics presents the Annual Gordon Tomkins Lecture and Concert from 3 to 5 p.m. in Cole Hall. The Tomkins Lecturer this year will be Richard Axel, a noted neuroscientist and molecular biologist at Columbia University whose research revolutionized the understanding of the sense of smell. Axel's talk will be preceded by the musical portion of the program: The San Francisco Chamber Players who will perform music by Bach, Marvin and Martinu. The concert and lecture are open to the public and will be followed by a reception, from 5 to 7 p.m., at the Faculty Alumni House, 745 Parnassus Ave. For more information, call 502-5141.

Founders Day Research Lecture

Monday, March 9: UCSF celebrates Founders Day with several events, including the Faculty Research Lecture to be held in Cole Hall. This lecture is free and open to the public.

Women as Leaders Forum

Thursday, March 12: UCSF and UC Berkeley co-sponsor "Women Leaders: A Symposium for Women in University Settings," an all-day conference designed to give women an opportunity to discuss and critically examine how women gain access to positions of leadership in higher education. Workshop topics include leadership for women of color, creative decision making and financial investing. Speakers and workshop leaders include M. Joycelyn Elders, former US Surgeon General; Shirley S. Chater, former US Commissioner of the Social Security Administration; and Dean Herma Hill Kay of UC Berkeley Boalt School of Law. The forum welcomes all women and men interested in issues relating to women and academic leadership. The event will be held at the Clark Kerr Campus, UC Berkeley. Cost is $75 for early registration (until Friday, Feb. 6) and $100 for late registration (until Monday, March 2). To register, contact Jean Chen at 476-5836. For more information: http://rebus.ucsf.edu/~wls

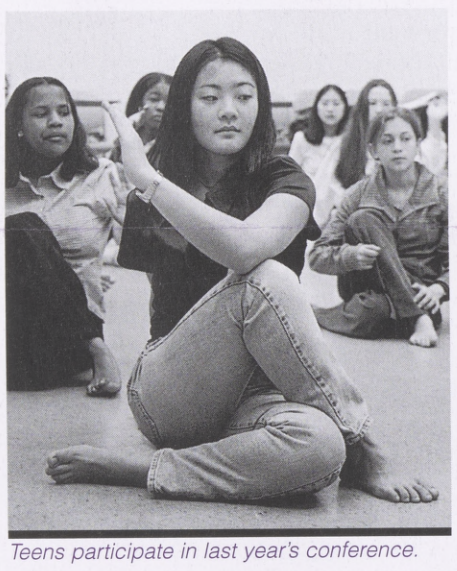
Women's Health 2000 Conference

Saturday, March 21: UCSF hosts "Gaining Knowledge and Understanding for Women's Health and Wellness," an all-day symposium geared for women of all ages to be held in Cole Hall, 513 Parnassus Ave., from 8 a.m. to 4:30 p.m.

More than 25 topics will be discussed, including menopause, breast cancer, fertility and stress management. UCSF also presents Teen Health 2000, a series of interactive workshops designed exclusively for young women ages 13-18. These programs will run concurrently.

Susan Blumenthal, MD, assistant surgeon general and Rear Admiral in the US Public Health Services, will deliver the keynote address. An internationally recognized expert in women's health, Blumenthal served as the country's first woman deputy assistant secretary for women's health in the department of health and human services.

The event is sponsored by the UCSF department of obstetrics and gynecology and the UCSF National Center for Excellence in Women's Health. Cost is $40 for adults, $5 for teens, and $30 for seniors. For more information and a free brochure, call 675-0177.



Teens participate in last year's conference.

Women's Center

The UCSF Women's Resource Center sponsors workshops and events for the campus community. Call 476-5222 to register or for more information or check out the center's website at http://itsa.ucsf.edu/~wrc

Thursday, Jan. 15: **25th Anniversary of Roe v. Wade: From Back Alleys to Clinics and Back Again?** Toni Guty, Vice President of Education for Planned Parenthood Golden Gate, discusses the state of women's reproductive health in America. Toland Hall, noon-1 p.m. Free.

Thursday, Jan. 22: **Martin Luther King Jr. Week: A Conversation with Wilma Mankiller.** Mankiller, principal chief of the Cherokee Nation, exemplifies the Cherokee's rich history of women leaders. An astute observer of the American political scene, Mankiller is an important advocate for minority rights and women's issues. She will explore the connections between race and gender and promote social justice. Cole Hall, noon-1 p.m. Free.

Tuesday, Feb. 10: **Relaxed, Natural, Braids, Dreadlocks...It's All Good! Black Women's Hair.** A lively interactive panel discussion about the politics of Black women's hair and our multi-faceted hairstyles. The film, "Hairpiece: A Film for Nappy Headed People," will be shown. S 214, noon-1 p.m. Free.

Tuesday, March 10: **The Spirit of Intimacy: Ancient Teachings in the Ways of Relationships.** Sobonfu Some, an initiated spokeswoman for the Dagara Tribe of Burkina Faso, West Africa, examines the foundations of healthy, intimate relationships from an indigenous perspective. S 214, noon-1 p.m. Free.

Community Meetings

UCSF Community Advisory Group. The UCSF Community Advisory Group will meet Tuesday, Jan. 20, and Monday, March 30, from 6:30 to 8:30 p.m., at the Laurel Heights Conference Center, 3333 California St. For more information, call UCSF Community and Governmental Relations at 476-3206.

Mount Zion Community Group. UCSF/Mount Zion hosts meetings to keep neighbors informed of activities of interest and to listen to their concerns. The next meeting will be held at 7 p.m., Tuesday, Jan. 27, Executive Board Room, second floor, UCSF/Mount Zion Medical Center, 1600 Divisadero St. Call 476-3206 for more information.

Brown Bag Lectures

Public Service Programs, a unit of the UCSF Public Affairs department, offers free weekly lectures on Wednesdays at 12:10 p.m. in Health Sciences West, Room 300 (P), 505 Parnassus Ave.; monthly from noon to 1 p.m. on Thursdays, Mission Center building (MCB), 1855 Folsom St.; and monthly on Tuesdays in Herbst Hall, UCSF/Mount Zion (MZ), 1600 Divisadero St. Call 476-4394 for more information.

Jan. 14 **UCSF Stanford Health Care: Academic Medicine's New Superstar.** Will UCSF's academic mission be helped or hindered by the formation of the new nonprofit corporation? (P)

Jan. 15 **Financial Conflict Resolution: A Couple's Guide.** (MCB)

Jan. 20 **Financial Conflict Resolution: A Couple's Guide.** (MZ)

Jan. 21 **Of King and Country.** Is the dream of Dr. Martin Luther King Jr. alive and well today? (P)

Jan. 28 **The Pill For Men? Facts through Fiction.** (P)

Feb. 4 **When to Call Your Pediatrician.** (P)

Feb. 11 **Mighty Docs.** Stories from three generations of African-American physicians. (P)

Feb. 17 **Coronary Artery Disease? High Cholesterol?** (MZ)

Feb. 18 **Language and the Brain.** Lessons learned from awake brain surgery. (P)

Feb. 19 **Adult Urgent Care at UCSF** (MCB)

Feb. 25 **The Power of Lifestyle Changes: The Heart Disease Reversal Program.** (P)

March 4 **The Solution.** The simple way to keep weight off without diets or drugs. (P)

March 11 **A Woman's Work is Never Done.** A day in the life of a transplant surgeon, Nancy Ascher. (P)

March 17 **Update on Prevention of Colon Cancer.** (MZ)

March 18 **An Afternoon With Dr. Sandra Hernandez.** An autobiographical journey with the director and CEO, San Francisco Foundation and former San Francisco director of public health. (P)

March 19 **Oh My Aching Back** (MCB)

March 25 **What's New in Dentistry.** (P)

Campus Tours

Public Service Programs provides free campus tours beginning at 1 p.m. on the first Friday of each month. Meet in the Medical Sciences lobby, 513 Parnassus Ave. Call 476-4394 for more information and appointments.

Recreation

Millberry Programs & Services. This service offers hundreds of classes, clinics and workshops to keep the bodies and minds of both adults and children motivated, stimulated and fascinated. Course topics include swing dance, self-defense, cooking, swimming and yoga. The Millberry Fitness Center, open weekdays from 6 a.m. to 10 p.m., and weekends from 7:30 a.m. to 8 p.m., is open to the public for club membership in addition to faculty, staff and students at UCSF. For more information or to receive a new catalog of program offerings, call 476-1115.

Outdoors Unlimited. A cooperative resource center for outdoor recreation and adventure rents cabins on the South and North shores of Lake Tahoe, plus an array of downhill and cross-country skis, snowboards and equipment for camping and playing in the snow country. OU also offers classes in sea kayaking, whitewater rafting, backpacking, first aid and CPR and organizes camping and sailing trips as well as other outdoor activities. For more information, visit the website at www.outdoors.ucsf.edu/ou or call the center at 550 Parnassus Ave. (under the campus library) at 476-2078.

Great Expectations

UCSF Stanford Health Care sponsors classes on childbirth and parenting through the Great Expectations for Women's Health Program at UCSF. Here are a few of the classes for 1998. All classes are held in the Ambulatory Care Center (ACC), 400 Parnassus Ave.

Healthy Pregnancy: Get involved in your pregnancy and develop a healthy lifestyle to manage physical and emotional changes, weight gain, diet, exercise, avoiding harmful chemicals and stress. Tuesdays, Feb. 3. and March 17, 6:30-9 p.m. Free.

Breastfeeding: Information about how the breast works, milk production, let-down, latch-on, positioning, problem solving, pumping, milk storage, etc. Tuesdays, Jan. 13, Feb. 10, March 10, 6:30-9 p.m. and Fridays, Feb. 6 and March 6, 1:30-4 p.m. Fee $20 for one parent; $25 for two.

Surviving the First Two Weeks with a New Baby: Newborn bathing, hygiene, diapers, diapering, crying, comforting, sleep and recognizing illness discussed. Tuesdays, Jan. 20, Feb. 17 and 24, March 24 and 31, 6:30-9 p.m.; Saturday, Jan. 31, 1-2:30 p.m. Fee $20 for one parent; $25 for two.

Childbirth Preparation: Integrated Methods: Four-week series on stages and process of labor, breathing and relaxation techniques, support, medication options, variations in labor, including cesarean birth, immediate postpartum for mother and baby. All classes held from 6:30-9 p.m. Mondays, Jan. 26, Feb. 2, 9 and 23, March 2, 9, 16 and 23; Wednesdays, Jan. 7, 14, 21 and 28; and Thursdays, March 12, 19 and 26. Fee $130 per series.

Birth Center Orientations: The Birth Center at UCSF provides a comprehensive spectrum of services for family planning, maternity and infant care. Along with private birthing suites, the center offers integrated primary care and prenatal care at UCSF's Parnassus, Daly City and BaySpring sites. Learn about the facilities and the practical aspects of arriving at Long Hospital when in labor. Sign-up for free tours as early as possible as they fill up quickly. Tuesdays, 5:30-6:30 p.m.

Great Expectations also has an extensive library of books, videos and audio tapes on pregnancy, labor and parenting in its Resource Center and Library, A 801-2. For more information or to register for a class, call 476-6667. To learn about other women's health programs or to find a physician, call a women's health referral specialist at 476-0668.

Hospital Volunteer Program

Volunteer Services acquaints prospective volunteers with opportunities to lend a helping hand at the medical centers at UCSF and UCSF/Mount Zion. For dates, times and locations of orientation sched-

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ules for Parnassus, call 476-1196. Call 885-7353 for an orientation schedule at UCSF/Mount Zion.

Blood Drives

In recognition of January, National Donor Awareness Month, UCSF is hosting a campus blood drive on Wednesday, Jan. 28, from 9 a.m. to 5 p.m., in the MU Conference Center. The campus community can donate blood anytime, however, at the Blood Center, 505 Parnassus, Room L 131. The Center's hours are Monday through Friday, 8 a.m. to 7:45 p.m. and on Saturday, 9 a.m. to 4:30 p.m. No appointment is needed. For more information, call 476-6989.

Aging Education

The UCSF/Mount Zion Center on Aging presents the Community Health Education Series featuring workshops on health issues of particular concern to seniors. Clinical experts at UCSF will give attendees information to help them be proactive about their own health and well-being. The workshops are free of charge, but pre-registration is required as seating is limited. For more information, call the UCSF/Mount Zion Center on Aging education office at 750-5342.

Saturday, Feb. 14: **Counting Sheep: Conquering Sleep Problems**

Saturday, March 28: **Osteoporosis: The Silent Thief**

Arts & Entertainment

Cole Hall Cinema. Arts & Performances shows films Thursdays and Fridays in Cole Hall, 513 Parnassus Ave. Call 476-2542 for the latest films and showtimes.

Hospital Auxiliary Exhibits. The Hospitals Auxiliary of the Medical Center at UCSF exhibits works of artists on the first floor of Moffitt/Long Hospitals, 505 Parnassus Ave. Proceeds from Hospital Auxiliary exhibits benefit patients and their families. Artist Ingrid Caras shows monoprints through Jan. 26. Artists Judy Sherman and Stephanie Getzler show water colors from Jan. 26 to Feb. 23. For more information, call 476-4906.

Faculty/Alumni House Exhibits. The Faculty/Alumni House, 745 Parnassus Ave., displays watercolors and pastels by Sherrie Smith in an exhibition titled "Somewhere Between the Moon and the Sea." This exhibit, open weekdays or by appointment, will be shown through Friday, Feb. 27. For more information, call 476-4723.

The Faculty/Alumni House shows a watercolor titled "Family Portrait" by Sherrie Smith.

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Basic science helps to explain how life works at its most fundamental levels.

Of Science, Scientists and UCSF

It may come as a surprise that the first person to see living bacteria was not a "scientist" per se, but a 17th century draper from Holland named Antony von Leeuwenhoek. When this "self-taught Columbus of the littlest world" turned his crude blob of a magnifying glass on pond water instead of cloth, he entered an unimagined universe of microorganisms, cells and molecules that scientists at UCSF and around the world now examine freely and daringly. Was von Leeuwenhoek acting like a scientist? Of course. Did he use that term to describe himself? No. But it did not matter. In his day, there was a permeable boundary between keen observation and science and ample room for an amateur's persistence, originality and ingenuity.

Flash forward three centuries and one may ask if the same attributes describe today's scientific enterprise. For scientists the answer is an obvious and enthusiastic yes. In their minds, science continues to be a quest to know, governed by a methodical process of experiment. That is why scientists, particularly university scientists like those at UCSF, prefer to be called investigators. It defines how they feel about the type of work they have undertaken and the mysteries they will likely confront.

Those who are indifferent to science or who question its relevance might imagine for a moment a world in which everything was random, a muddled mess of unpredictable events and consequences with no pattern, no shape and no understanding. For all the uncertainty, horrors and surprises of modern life, we do not live in such a world. Our universe has rules, systems and limits that are far from random. Cells, for example, are born, grow and move in a particular way. Bodies and limbs — from the wings of a fruit fly to the trunk of an elephant — generate in a certain ordered sequence. Our fetal brains develop at the rate of 2,000 neurons per second. Why? And why this way and not that? Why then and not later? What is normal or abnormal? These are questions UCSF scientists like to ask, particularly if they are "basic" scientists, because the answers help to explain how life works at its most fundamental levels.

And without such answers scientists cannot hope to outwit diseases such as cancer and AIDS, understand the complexities of learning and memory, or decipher the biology of addiction and aging, to name a mere thimbleful of worthy pursuits. Indeed, it is scientific discovery that often underlies clinical achievements and that sets the stage for everything from new drugs to surgical advances.

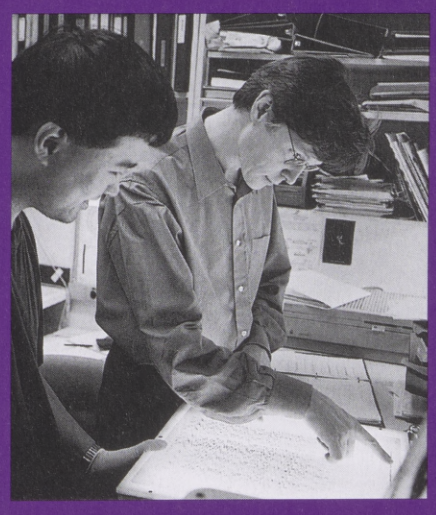
Some argue that this curiosity is often double-edged, that objective knowledge can be misused. History demonstrates that this is sometimes true. But while the curiosity that underlies scientific discovery is profoundly human, the direction of scientific inquiry is profoundly fluid — particularly at universities where the freedom to explore allows the freedom to fail. And it is in this ever-changing context that a public institution such as UCSF, with its 1,300 principal investigators and 3,000 research projects, can focus its collective brainpower on problems, objectives and innovations with huge societal impact. That is the great promise of science at UCSF, San Francisco's oldest public university, a promise that will be furthered immeasurably by the new campus taking shape at Mission Bay over the next decade-and-a-half and the research renaissance it will spark at the Parnassus Heights campus as a result.

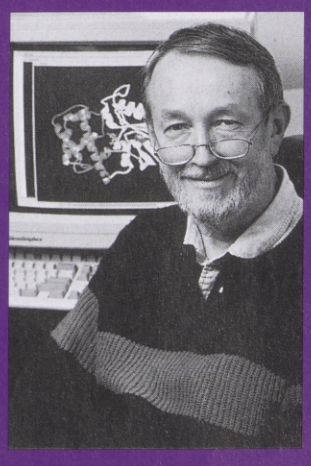
Already there is great excitement about the "new science" that will stamp UCSF Mission Bay as something remarkable. Indeed, what is being discussed is not simply transplanting existing programs but rather the creation of truly novel ones that will combine, for example, the new knowledge of genetics with advances in electronics and biotechnology to reveal further insights into how cells work. The same deep level of understanding about the brain is now possible, too, thanks to advances in neuroscience, genetics, cell and molecular biology, theory and computation, and in studies of human performance and brain activity, many of which have been carried out at UCSF. These can be merged with what has been deciphered about learning and memory, perception and decision making to create research programs that reveal the hidden music of the brain's 15 billion nerve cells. This is to say nothing of the unprecedented advances in the understanding of human biology and disease made possible by the unraveling of the human genome.

Indeed it is not overconfidence that allows UCSF scientists to declare that they now know what to do, but an acknowledgment that over the last 20 years they have explored the inner universe, mapped the most promising routes and are ready to begin the journey of discovery. The ingenious and persistent spirit of von Leeuwenhoek is alive in this quest. So, too, is the need to serve the public good. And for those with even an ounce of curiosity about why things are the way they are, there is room as well. For in the end, it is not the state of knowing as much as the state of seeking that makes science universal and that makes scientists of us all.

— Jeff Miller

For more information about science at UCSF, contact UCSF Public Affairs at 476-2557





To Our Neighbors
January–March 1998

UCSF plans to create research hub at Mission Bay campus

Researchers develop vaccine to retard breast cancer tumors

Program curbs mother-to-baby HIV transmission rates

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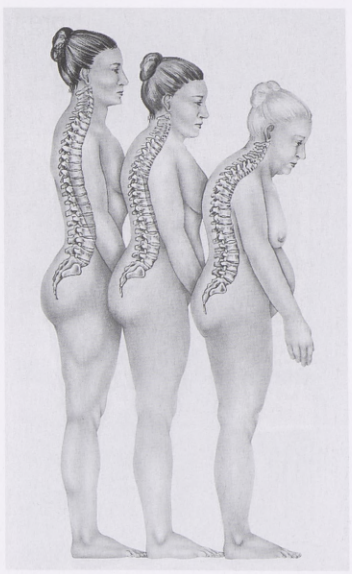
To Our Neighbors

Study shows success treating osteoporosis

Researchers find that estrogen derived from plants prevents osteoporosis at half the dose of the animal-based estrogen normally prescribed by physicians.

A research team led by a UCSF scientist reports treatment with this estrogen produced fewer side effects, such as an increase in vaginal bleeding, breast tenderness, headaches or nausea than the standard treatment does. In fact, the estrogen used in the study also brought relief from such menopausal symptoms as hot flashes and night sweats.

The finding has potentially significant implications for the preventive treatment of osteoporosis and heart disease in post-menopausal women as it diminishes risks and could increase compliance with drug treatment, says Harry K. Genant, MD, director of the Osteoporosis Research Group at UCSF.



Women taking doses of plant-based estrogen with a daily supplement of 1,000 milligrams of calcium, a standard component of estrogen therapy, showed increased bone mineral density in the spine, hip and whole body. Patients receiving a placebo continued to lose bone mineral density.

Estrogen replacement therapy is intended to compensate for the loss of estrogen during menopause, which leads to an accelerated loss of bone and places women at risk for disabling fractures and osteoporosis. It also increases the risk of heart disease, coronary spasms and stiffer arteries.

Protein may spur Alzheimer's disease

Investigators from the J. David Gladstone Institutes, UCSF and UC San Diego found that brains of patients with Alzheimer's disease have dense deposits of a substance called amyloid around blood vessels and also contain high levels of the protein called transforming growth factor beta-1, or TGF.

Many previous studies have suggested that abnormal deposition of amyloid, which is made up of protein fragments that can damage and kill brain cells, plays an important role in the development of Alzheimer's disease.

The investigators used genetically engineered mice to overproduce TGF in their brains to prove the disease-causing potential of TGF. As the mice aged, they developed brain amyloid deposits that closely resembled those found in humans with Alzheimer's disease.

"An increasing number of scientists believe that treatments that could prevent amyloid deposition might also prevent the disease," says Tony Wyss-Coray, a Gladstone research scientist and UCSF instructor.

Chris T. Anderson

Rehabilitation specialist Vince Mackie partners with Beaulah Gray, who kicked up her heels recently at her birthday party at the Alzheimer's Day Center.

A centennial celebration

Beaulah Gray danced the afternoon away recently during her 100th birthday party at the Alzheimer's Day Center, where she spends four days a week keeping active.

Devoted to persons with memory loss, the Alzheimer's Day Center is one of many programs for the elderly offered by the UCSF-affiliated Goldman Institute on Aging. Structured and interactive activities help clients avert placement in a nursing home by maximizing their mental and physical abilities. Operating six days a week, the program provides noon meals and transportation for clients. The center also offers support group and respite care for caregivers. For more information on the center, call 750-5330.